(No Model.)

S. C. WILSON.

CAR COUPLING.

No. 339,122. Patented Mar. 30, 1886.

Fig. 1.

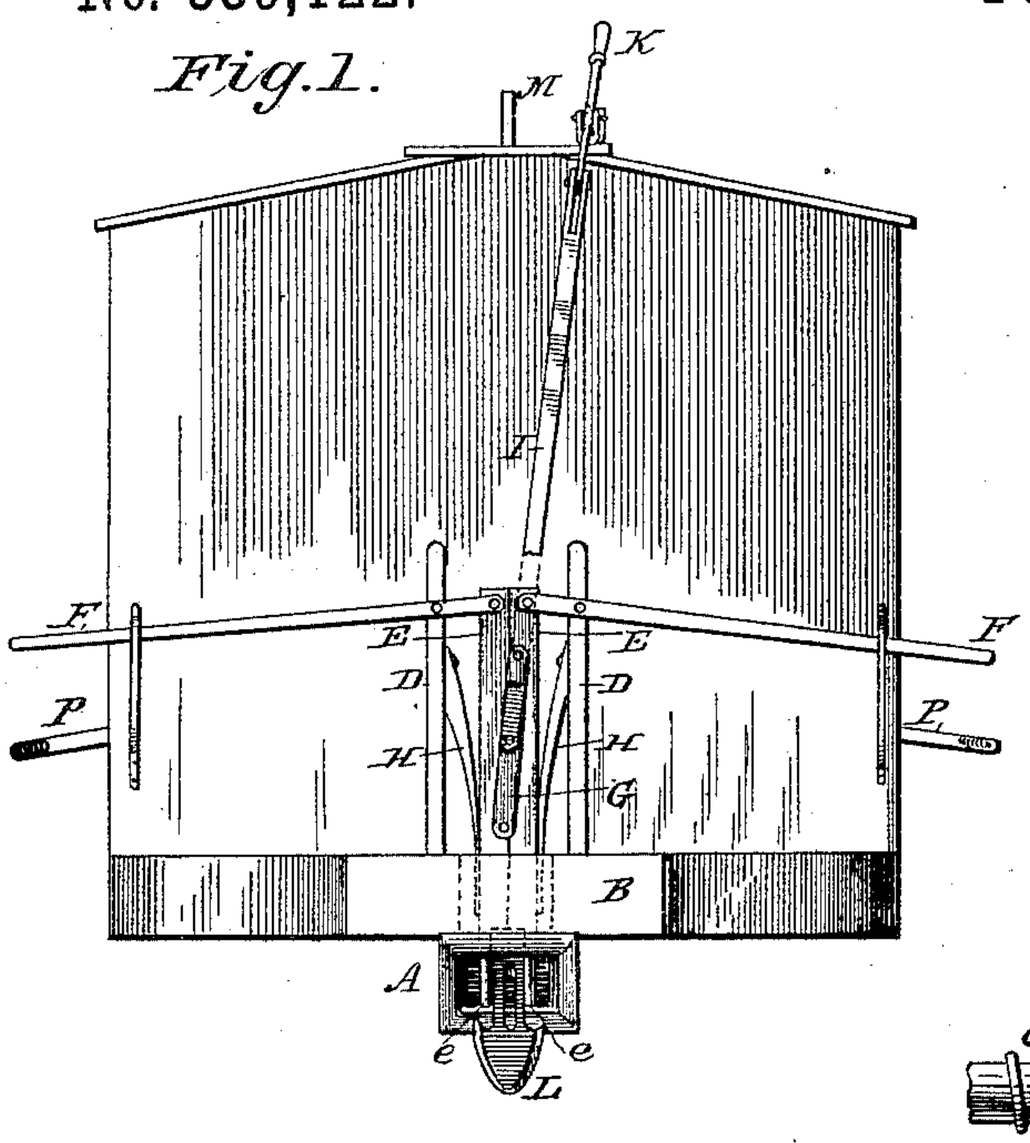


Fig. 2.

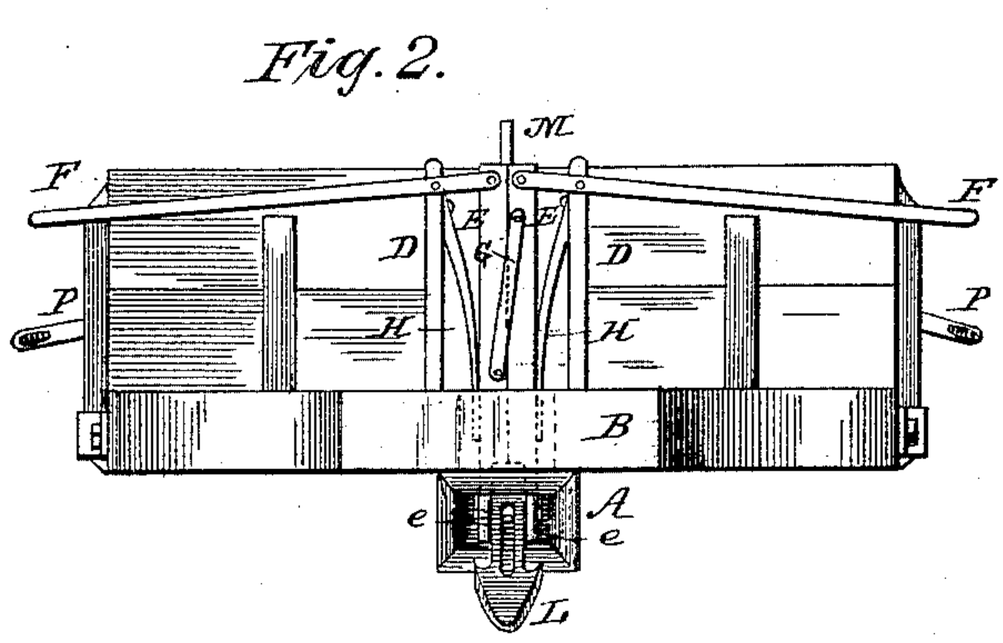


Fig. 3.

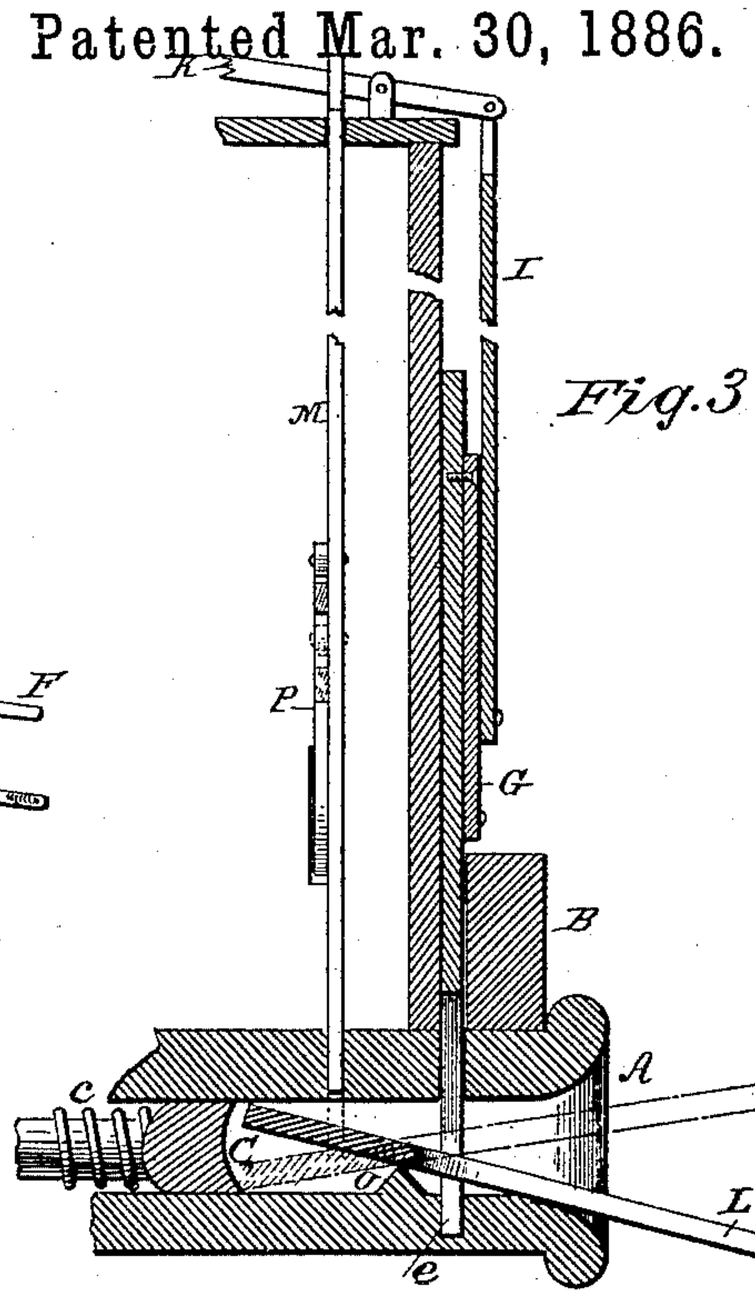


Fig. 4.

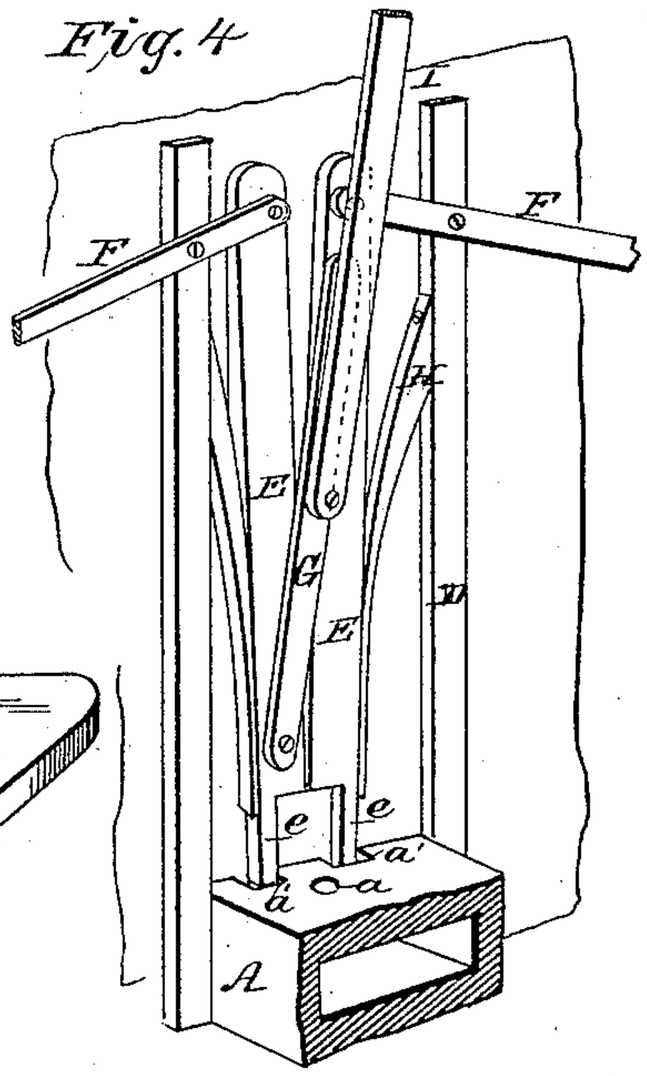
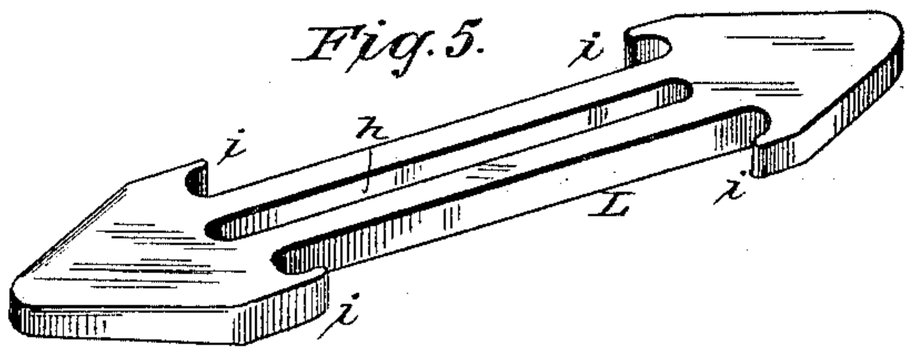


Fig. 5.



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SAMUEL C. WILSON, OF FORREST CITY, ARKANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 339,122, dated March 30, 1886.

Application filed February 6, 1886. Serial No. 191,026. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL C. WILSON, a citizen of the United States, residing at Forrest City, in the county of St. Francis and State of Arkansas, have invented certain new and useful Improvements in Draw-Heads and Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to car-couplers, and pertains to the class of automatic couplers that may be readily uncoupled from the platform, sides, or top of the car.

Its object is to provide an automatic coupler that may be readily and conveniently uncoupled without danger to the operator.

It consists in certain details of construction and arrangement hereinafter more specifically described, and pointed out in the accompanying drawings, in which—

Figure 1 is an elevation of the end of an ordinary freight or box car with my coupler attached. Fig. 2 is a similar view of same applied to a flat or platform car. Fig. 3 is a sectional side elevation of my coupler, showing its several parts. Fig. 4 is a front elevation of my device. Fig. 5 is a detail view of the coupling-link.

Referring more particularly to the drawings, A represents the draw-head of an ordinary car, located beneath the platform B, and provided with the usual longitudinal opening for the coupling link. Within this opening is a movable block, C, held in place by a spring, *c*, whereby it is made to give or yield to pressure and to resume its position when the pressure is removed. This draw-head is provided with the usual central vertical opening, *a*, for the ordinary coupling-pin, and with other auxiliary openings, *a'*, on each side and in rear of the former to adapt it to the peculiar form of pin employed in my coupler.

D D represent cleats secured to the end wall of the car on each side of the draw-head.

E E represent a pair of vertical standards between the cleats, their lower ends being reduced in size to enable them to pass down through the openings *a'* of the draw-head and serve as coupling-pins. These standards are moved vertically upward or downward by levers F, extending outward to the sides of the car and fulcrumed upon the cleats D, their inner ends being pivotally secured to the standards. They are also capable of a limited lateral motion, the openings *a'* in the draw-head being slightly elongated to admit of such lateral motion. They are loosely united by a link or plate, G, extending obliquely from the lower portion of one to the upper portion of the other, and pivoted at its ends to each opposite standard, whereby they are made to move or operate in union. Interposed between each standard and its adjacent cleat are springs H, which bear against the standards and hold them in contact with each other when in their normal position. A rod, I, is pivotally attached to the plate G near its center, and extends upward to the top of the car, where it connects with the end of a lever, K, fulcrumed upon the top of the car, as shown in Figs. 1 and 3, whereby the standards may be operated from the top as well as the sides of a car.

L represents my coupling-link, which is in the form of a double-headed arrow, having a longitudinal central slot, *h*, adapting it for use with an ordinary coupling-pin, and holding-hooks *i*, adapting it for use with my coupler.

M represents a vertical rod, immediately in rear of the casing, extending down into the opening in the draw-head upon the rear end of the link, and shown in Fig. 3, the purpose of which will be presently explained.

The manner of operating my device is as follows: We will presume the vertical standards E to be in their normal position, with their lower ends, *e*, projecting through the openings *a'* in the draw-head, as shown in Figs. 1, 2, and 3. The coupling L is then inserted into the opening, its point passing between the bolts or pins *e*, and its inclined sides forcing them apart until the hooks *i* are reached, when they are forced inward by the springs H and engage with said hooks. The car is then ready to be coupled with another, and is moved forward until the opposite end of the link reaches the draw-head of the next

car, which, owing to the difference in height of various cars, may be higher or lower than the one holding the link.

In order to adjust the position of the link to these varying positions, I provide in rear of the coupling pin or pins a rib or projection, *o*, extending upward a short distance from the bottom or under side of the longitudinal opening in the draw-head upon which the rear portion of the link rests, its weight causing its outer end to incline downwardly when in its normal position. In case the draw-head of the car to which it is desired to couple is higher than the position of the point of the link, the operator raises said outer point, as shown in dotted lines, Fig. 3, by pressing down upon the rod *m*, which rests upon the rear end of the link, and by means of the fulcrum *o* the outer end is raised to the desired height to enable it to enter the opening of the opposite draw-head, where it passes between the coupling-pins in the same manner as hereinbefore described. In order to effect this result when the operator is at the side of the car, I provide a pair of levers, P, which are pivotally attached to the rod M and to the end wall of the car as a fulcrum and project through longitudinal openings in the side walls, their outer ends being weighted, so that in its normal position the rod will be lifted above the link, and by lifting either of these levers the rod is forced downward and raises the outer point of the link, as hereinbefore described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination of the vertical standards having their lower ends adapted to pass through the draw-head and serve as coupling-pins, the horizontal levers for operating the same, the draw-head, and the coupling-link, substantially as and for the purpose described.

2. In a car-coupler, the vertical standards terminating in coupling-pins, the draw-head, the horizontal levers, the pivoted plate connecting the vertical standards, and the coupling-link, all combined and operating substantially as and for the purpose described.

3. In a car-coupler, the vertical standards terminating in coupling-pins, the connecting-plate, the horizontal operating-levers, the springs bearing against the standards, the draw-head, and the link, all combined and operating substantially as and for the purpose described.

4. In a car-coupler, the combination of the draw-head provided with an interior projecting rib, the link, and the vertical rod pivoted to horizontal weighted levers and projecting through the draw-head over the rear end of the link, substantially as and for the purpose described.

5. In a coupling device for cars, the combination of the draw-head, the vertical standards terminating in coupling-pins and connected by the pivoted plate G, the springs H, the horizontal operating-levers F, the lever K, and its connecting-rod I, arranged substantially as and for the purpose described.

6. In a car-coupling device, the vertical standards connected by the pivoted plate, the horizontal levers, the springs H, and the draw-head, in combination with the vertical rod M, having pivoted thereto the horizontal weighted levers P, and the link, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL C. WILSON.

Witnesses:
H. B. FIZER,
H. B. GORMAN.